

=> d his ful; d sta que

(FILE 'HOME' ENTERED AT 14:45:43 ON 24 FEB 2006)

FILE 'REGISTRY' ENTERED AT 14:45:53 ON 24 FEB 2006

```
L1          STRUCTURE UPLOADED
L2          STRUCTURE UPLOADED
L3          STRUCTURE UPLOADED
L4          STRUCTURE UPLOADED
L5          STRUCTURE UPLOADED
L6          STRUCTURE UPLOADED
L7          1 SEA SSS SAM L2
L8          49 SEA SSS FUL L2
L9          49 SEA SUB=L8 SSS FUL L5
L10         50 SEA SSS SAM L4
L11         5342 SEA SSS FUL L4
L12         2831 SEA SUB=L11 SSS FUL L1
L13         STRUCTURE UPLOADED
L14         17 SEA SUB=L11 SSS FUL L13
           D QUE L11
L15         2511 SEA PLU=ON  L11 NOT L12
L16         2499 SEA PLU=ON  L15 NOT L14
L17         4233291 SEA PLU=ON  SQL<=21
L18         2104 SEA PLU=ON  L17 AND L16
L19         613 SEA PLU=ON  L18 AND SQL<=10
L20         21 SEA PLU=ON  L18 AND SQL<=5
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FILE 'HCAPLUS, USPATFULL, USPAT2, TOXCENTER, CASREACT' ENTERED AT 15:04:39 ON 24 FEB 2006

```
L21         8 SEA PLU=ON  L9
L22         7 DUP REM L21 (1 DUPLICATE REMOVED)
           D IBIB L22 1-7 HITSTR
           SET AUTOSEARCH ON PERM
L23         37 SEA PLU=ON  L20
L24         30 DUP REM L23 (7 DUPLICATES REMOVED)
L25         30 SEA PLU=ON  L24 NOT L22
L26         18 SEA PLU=ON  L25 AND (PD<20010216 OR PRD<20010216)
L27         13 SEA PLU=ON  L25 AND (PD<20000216)
L28         2 SEA PLU=ON  L27 AND TRANSPOR?
           D IBIB HITSTR L28 1-2
           D L28 1-2 IBIB KWIC
```

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 22 FEB 2006 HIGHEST RN 874945-83-2

DICTIONARY FILE UPDATES: 22 FEB 2006 HIGHEST RN 874945-83-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

```
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,  *
```

* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

FILE HCAPLUS

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 24 Feb 2006 VOL 144 ISS 10
FILE LAST UPDATED: 23 Feb 2006 (20060223/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 23 Feb 2006 (20060223/PD)
FILE LAST UPDATED: 23 Feb 2006 (20060223/ED)
HIGHEST GRANTED PATENT NUMBER: US7003800
HIGHEST APPLICATION PUBLICATION NUMBER: US2006041984
CA INDEXING IS CURRENT THROUGH 23 Feb 2006 (20060223/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 23 Feb 2006 (20060223/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 23 Feb 2006 (20060223/PD)
FILE LAST UPDATED: 23 Feb 2006 (20060223/ED)
HIGHEST GRANTED PATENT NUMBER: US2004201620
HIGHEST APPLICATION PUBLICATION NUMBER: US2006041918
CA INDEXING IS CURRENT THROUGH 23 Feb 2006 (20060223/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 23 Feb 2006 (20060223/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2005
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2005

FILE TOXCENTER

FILE COVERS 1907 TO 21 Feb 2006 (20060221/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TOXCENTER has been enhanced with new files segments and search fields.
See HELP CONTENT for more information.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the
MeSH 2006 vocabulary.

See <http://www.nlm.nih.gov/mesh/>

http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html

http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

for a description of changes.

FILE CASREACT

Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.

FILE CONTENT:1840 - 19 Feb 2006 VOL 144 ISS 8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

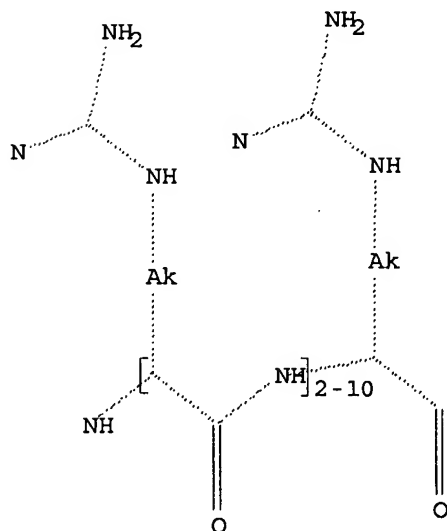
*
* CASREACT now has more than 10 million reactions *
*

Some CASREACT records are derived from the ZIC/VINITI database (1974-1991)
provided by InfoChem, INPI data prior to 1986, and Biotransformations
database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance
identification.

L1

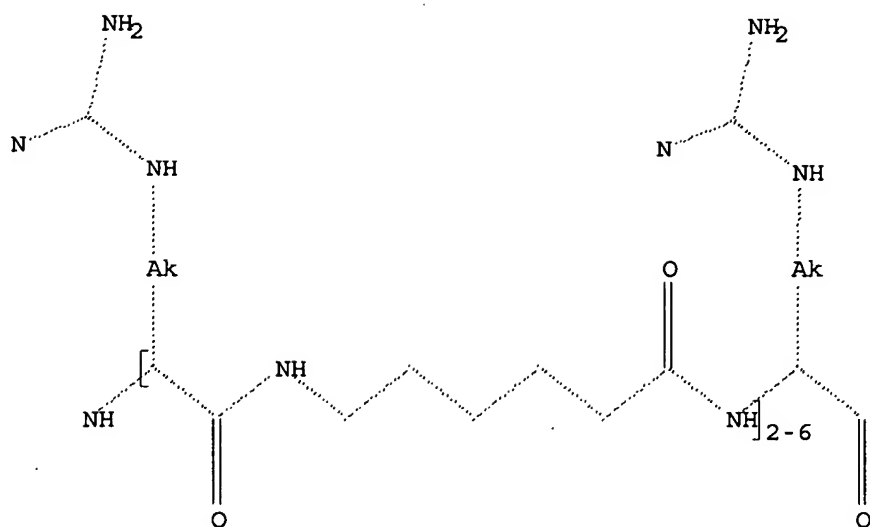
STR



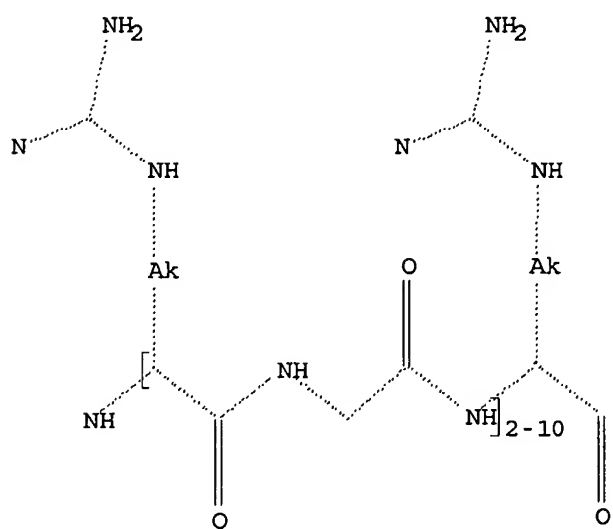
Structure attributes must be viewed using STN Express query preparation.

L2

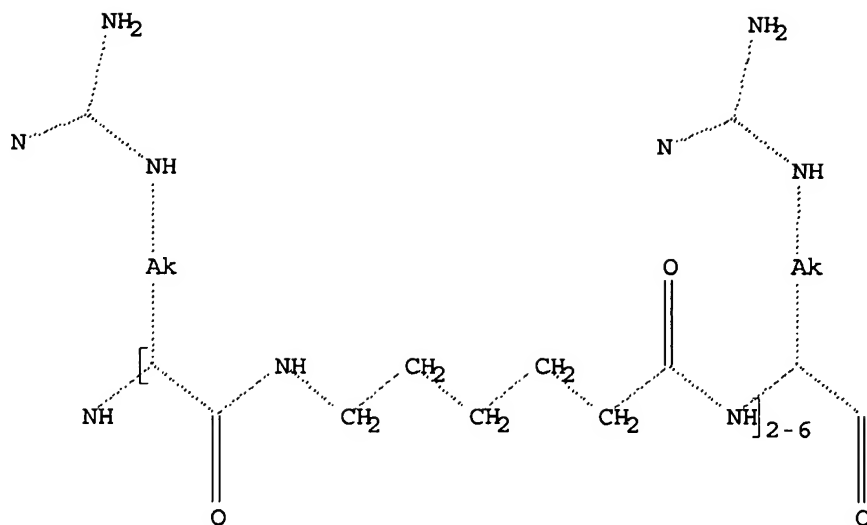
STR



Structure attributes must be viewed using STN Express query preparation.
L4 STR

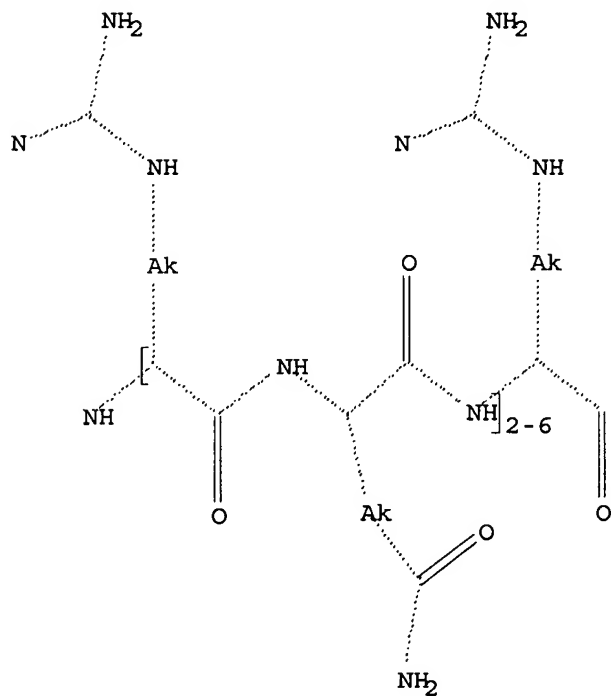


Structure attributes must be viewed using STN Express query preparation.
L5 STR



Structure attributes must be viewed using STN Express query preparation.

L8 49 SEA FILE=REGISTRY SSS FUL L2
 L9 49 SEA FILE=REGISTRY SUB=L8 SSS FUL L5
 L11 5342 SEA FILE=REGISTRY SSS FUL L4
 L12 2831 SEA FILE=REGISTRY SUB=L11 SSS FUL L1
 L13 STR



Structure attributes must be viewed using STN Express query preparation.

L14 17 SEA FILE=REGISTRY SUB=L11 SSS FUL L13
 L15 2511 SEA FILE=REGISTRY PLU=ON L11 NOT L12
 L16 2499 SEA FILE=REGISTRY PLU=ON L15 NOT L14
 L17 4233291 SEA FILE=REGISTRY PLU=ON SQL<=21
 L18 2104 SEA FILE=REGISTRY PLU=ON L17 AND L16
 L20 21 SEA FILE=REGISTRY PLU=ON L18 AND SQL<=5

L21 8 SEA L9
L22 7 DUP REM L21 (1 DUPLICATE REMOVED)
L23 37 SEA L20
L24 30 DUP REM L23 (7 DUPLICATES REMOVED)
L25 30 SEA L24 NOT L22
L27 13 SEA L25 AND (PD<20000216)
L28 2 SEA L27 AND TRANSPOR?

L28 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:569549 HCAPLUS

DOCUMENT NUMBER: 133:203119

TITLE: Nuclear import of insulin-like growth factor-binding protein-3 and -5 is mediated by the importin β subunit

AUTHOR(S): Schedlich, Lynette J.; Le Page, Sophie L.; Firth, Sue M.; Briggs, Lyndall J.; Jans, David A.; Baxter, Robert C.

CORPORATE SOURCE: Kolling Institute of Medical Research, Royal North Shore Hospital, University of Sydney, Sydney, 2065, Australia

SOURCE: Journal of Biological Chemistry (2000), 275(31), 23462-23470

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 290828-81-8

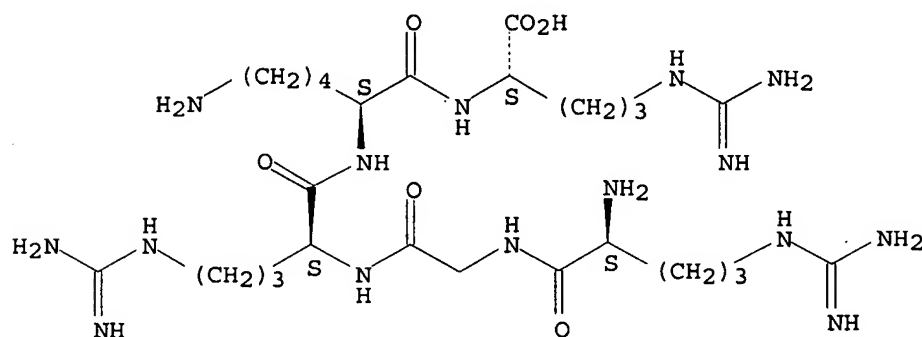
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)

(214-218 recombinant human IGFBP-5 nuclear targeting fragment; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)

RN 290828-81-8 HCAPLUS

CN L-Arginine, L-arginylglycyl-L-arginyl-L-lysyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:886699 HCAPLUS

DOCUMENT NUMBER: 124:48962

TITLE: COOH-terminal sequence motifs target the T cell protein tyrosine phosphatase to the ER and nucleus

AUTHOR(S): Lorenzen, James A.; Dadabay, Carolyn Y.; Fischer, Edmond H.

CORPORATE SOURCE: Dep. of Biochemistry, Univ. of Washington, Seattle, WA, 98195, USA

SOURCE: Journal of Cell Biology (1995), 131(3), 631-43

CODEN: JCLBA3; ISSN: 0021-9525

PUBLISHER: Rockefeller University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

IT 171899-38-0

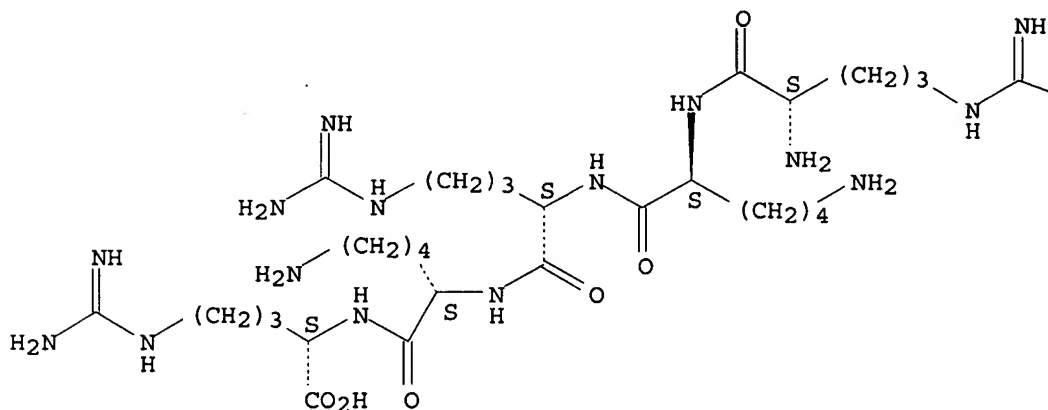
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(nuclear localization signal peptide; COOH-terminal sequence motifs target T cell protein tyrosine phosphatase to endoplasmic reticulum and nucleus)

RN 171899-38-0 HCAPLUS

CN L-Arginine, N2- [N2- [N2- (N2-L-arginyl-L-lysyl)-L-arginyl]-L-lysyl]- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

NH2

=> d his

(FILE 'HOME' ENTERED AT 14:45:43 ON 24 FEB 2006)

FILE 'REGISTRY' ENTERED AT 14:45:53 ON 24 FEB 2006

L1	STRUCTURE UPLOADED
L2	STRUCTURE UPLOADED
L3	STRUCTURE UPLOADED
L4	STRUCTURE UPLOADED
L5	STRUCTURE UPLOADED
L6	STRUCTURE UPLOADED
L7	1 S L2 SAM
L8	49 S L2 FUL
L9	49 S L5 FUL SUB=L8
L10	50 S L4
L11	5342 S L4 FUL
L12	2831 S L1 FUL SUB=L11
L13	STRUCTURE UPLOADED
L14	17 S L13 SUB=L11 FUL
L15	2511 S L11 NOT L12
L16	2499 S L15 NOT L14

L17 4233291 S SQL<=21
 L18 2104 S L17 AND L16
 L19 613 S L18 AND SQL<=10
 L20 21 S L18 AND SQL<=5

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L21 8 S L9
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 L25 30 L24 NOT L22
 L26 18 L25 AND (PD<20010216 OR PRD<20010216)
 L27 13 L25 AND (PD<20000216)
 L28 2 L27 AND TRANSPOR?

=> d l28 1-2 ibib kwic

L28 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:569549 HCAPLUS

DOCUMENT NUMBER: 133:203119

TITLE: Nuclear import of insulin-like growth factor-binding
 protein-3 and -5 is mediated by the importin β
 subunit

AUTHOR(S): Schedlich, Lynette J.; Le Page, Sophie L.; Firth, Sue
 M.; Briggs, Lyndall J.; Jans, David A.; Baxter, Robert
 C.

CORPORATE SOURCE: Kolling Institute of Medical Research, Royal North
 Shore Hospital, University of Sydney, Sydney, 2065,
 Australia

SOURCE: Journal of Biological Chemistry (2000),
 275(31), 23462-23470

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular
 Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

SO Journal of Biological Chemistry (2000), 275(31), 23462-23470

CODEN: JBCHA3; ISSN: 0021-9258

AB Although insulin-like growth factor-binding protein (IGFBP)-3 and IGFBP-5
 are known to modulate cell growth by reversibly sequestering extracellular
 insulin-like growth factors, several reports have suggested that IGFBP-3,
 and possibly also IGFBP-5, have important insulin-like growth
 factor-independent effects on cell growth. These effects may be related
 to the putative nuclear actions of IGFBP-3 and IGFBP-5, which the authors
 have recently shown are **transported** to the nuclei of T47D breast
 cancer cells. The authors now describe the mechanism for nuclear import
 of IGFBP-3 and IGFBP-5. In digitonin-permeabilized cells, where the
 nuclear envelope remained intact, nuclear translocation of wild-type
 IGFBP-3 appears to occur by a nuclear localization sequence
 (NLS)-dependent pathway mediated principally by the importin β
 nuclear **transport** factor and requiring both ATP and GTP
 hydrolysis. Under identical conditions, an NLS mutant form of IGFBP-3,
 IGFBP-3[228KGRKR \rightarrow MDGEA], was unable to translocate to the
 nucleus. In cells where both the plasma membrane and nuclear envelope
 were permeabilized, wild-type IGFBP-3, but not the mutant form,
 accumulated in the nucleus, implying that the NLS was also involved in
 mediating binding to nuclear components. By fusing wild-type and mutant
 forms of NLS sequences (IGFBP-3 [215-232] and IGFBP-5 [201-218]) to the
 green fluorescent protein, the authors identified the critical residues of
 the NLS necessary and sufficient for nuclear accumulation. Using a

Western ligand binding assay, wild-type IGFBP-3 and IGFBP-5, but not an NLS mutant form of IGFBP-3, were shown to be recognized by importin β and the α/β heterodimer but only poorly by importin α . Together these results suggest that the NLSs within the C-terminal domain of IGFBP-3 and IGFBP-5 are required for importin- β -dependent nuclear uptake and probably also accumulation through mediating binding to nuclear components.

- IT Biological **transport**
(import; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)
- IT Biological **transport**
(intracellular; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)
- IT 290828-81-8
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(214-218 recombinant human IGFBP-5 nuclear targeting fragment; mechanism for nuclear import of IGFBP-3 and -5 involving importin β subunit)

L28 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

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DOCUMENT NUMBER: 124:48962

TITLE: COOH-terminal sequence motifs target the T cell protein tyrosine phosphatase to the ER and nucleus
AUTHOR(S): Lorenzen, James A.; Dadabay, Carolyn Y.; Fischer, Edmond H.

CORPORATE SOURCE: Dep. of Biochemistry, Univ. of Washington, Seattle, WA, 98195, USA

SOURCE: Journal of Cell Biology (1995), 131(3), 631-43

CODEN: JCLBA3; ISSN: 0021-9525

PUBLISHER: Rockefeller University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

SO Journal of Cell Biology (1995), 131(3), 631-43

CODEN: JCLBA3; ISSN: 0021-9525

ST protein tyrosine phosphatase **transport** cell nucleus; endoplasmic reticulum protein tyrosine phosphatase **transport**

IT Biological **transport**
(translocation, COOH-terminal sequence motifs target T cell protein tyrosine phosphatase to endoplasmic reticulum and nucleus)

IT 171899-38-0

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(nuclear localization signal peptide; COOH-terminal sequence motifs target T cell protein tyrosine phosphatase to endoplasmic reticulum and nucleus)